

Chapter 1 : Insects: The Most Fun Bug Book Ever by Sneed B. Collard Book Reviews

*The Silliest Bug and Insect Book Ever [Terri Anne Hensley] on www.nxgvision.com *FREE* shipping on qualifying offers. This book came from the author's fear of bugs and insects.*

Markers, colored pencils, crayons, or paint
Decorative materials: In Advance Collect several cardboard egg cartons. Cut the bottom portion of the egg carton into individual sections. Children will use one section as the body of their spider. Activity Set up the art area with the suggested art materials. Tell the children that they will use the materials to create their own eensy-weensy spider. Invite a small group of children to the table at a time. Children can begin by designing the body of their spider. Provide children with a variety of paint colors, drawing materials, and decorative materials to encourage creativity and individuality. Provide the children with the pre-cut pipe cleaners to use as the legs of their spider. How many legs does a spider have? Pipe stems can be pushed into the cardboard body. Bend the tips of the pipe stems in the inside area to secure the legs. Offer assistance, if needed. Invite the children to share their spiders during group time. Keep art materials available so that children can continue making spiders or other types of bugs and insects. Invite children to use their spiders in the block-building area, sand area, or in other areas of the classroom. Provide children with art materials to create a special spider environment or home for their spider. Spider Names by Susan Canizares This high-interest book uses vivid photographs and emergent text to introduce young children to different types of spiders. Children love this tale about the spider that cannot play because she is too busy spinning her web. Other Books by Mary Ann Hoberman.

Chapter 2 : Jokelopedia: The Biggest, Best, Silliest, Dumbest Joke Book Ever by Ilana Weitzman

Insects: The Most Fun Bug Book Ever - Kindle edition by Sneed B. Collard. Download it once and read it on your Kindle device, PC, phones or tablets. Use features like bookmarks, note taking and highlighting while reading Insects: The Most Fun Bug Book Ever.

The segments of the body are organized into three distinctive but interconnected units, or tagmata: The thorax is made up of three segments: Each thoracic segment supports one pair of legs. The meso- and metathoracic segments may each have a pair of wings, depending on the insect. The abdomen consists of eleven segments, though in a few species of insects, these segments may be fused together or reduced in size. The abdomen also contains most of the digestive, respiratory, excretory and reproductive internal structures. Segmentation[edit] The head is enclosed in a hard, heavily sclerotized, unsegmented, exoskeletal head capsule, or epicranium, which contains most of the sensing organs, including the antennae, ocellus or eyes, and the mouthparts. Of all the insect orders, Orthoptera displays the most features found in other insects, including the sutures and sclerites. In prognathous insects, the vertex is not found between the compound eyes, but rather, where the ocelli are normally. In some species, this region is modified and assumes a different name. The anterior segment, closest to the head, is the prothorax, with the major features being the first pair of legs and the pronotum. The middle segment is the mesothorax, with the major features being the second pair of legs and the anterior wings. The third and most posterior segment, abutting the abdomen, is the metathorax, which features the third pair of legs and the posterior wings. Each segment is delineated by an intersegmental suture. Each segment has four basic regions. The dorsal surface is called the tergum or notum to distinguish it from the abdominal terga. In turn, the notum of the prothorax is called the pronotum, the notum for the mesothorax is called the mesonotum and the notum for the metathorax is called the metanotum. Continuing with this logic, the mesopleura and metapleura, as well as the mesosternum and metasternum, are used. Each segment of the abdomen is represented by a sclerotized tergum and sternum. Terga are separated from each other and from the adjacent sterna or pleura by membranes. Spiracles are located in the pleural area. Variation of this ground plan includes the fusion of terga or terga and sterna to form continuous dorsal or ventral shields or a conical tube. Some insects bear a sclerite in the pleural area called a laterotergite. Ventral sclerites are sometimes called laterosternites. During the embryonic stage of many insects and the postembryonic stage of primitive insects, 11 abdominal segments are present. In modern insects there is a tendency toward reduction in the number of the abdominal segments, but the primitive number of 11 is maintained during embryogenesis. Variation in abdominal segment number is considerable. If the Apterygota are considered to be indicative of the ground plan for pterygotes, confusion reigns: The orthopteran family Acrididae has 11 segments, and a fossil specimen of Zoraptera has a segmented abdomen. The procuticle is chitinous and much thicker than the epicuticle and has two layers: The tough and flexible endocuticle is built from numerous layers of fibrous chitin and proteins, criss-crossing each other in a sandwich pattern, while the exocuticle is rigid and hardened. Insects are the only invertebrates to have developed active flight capability, and this has played an important role in their success. Having their muscles attached to their exoskeletons is more efficient and allows more muscle connections; crustaceans also use the same method, though all spiders use hydraulic pressure to extend their legs, a system inherited from their pre-arthropod ancestors. Unlike insects, though, most aquatic crustaceans are biomineralized with calcium carbonate extracted from the water. The head capsule is made up of six fused segments, each with either a pair of ganglia, or a cluster of nerve cells outside of the brain. This arrangement is also seen in the abdomen but only in the first eight segments. Many species of insects have reduced numbers of ganglia due to fusion or reduction. Some insects, like the house fly *Musca domestica*, have all the body ganglia fused into a single large thoracic ganglion. At least a few insects have nociceptors, cells that detect and transmit signals responsible for the sensation of pain. The larvae reacted to the touch of the heated probe with a stereotypical rolling behavior that was not exhibited when the larvae were touched by the unheated probe. These macromolecules must be broken down by catabolic reactions into smaller molecules like amino acids and simple sugars before being used by cells of the body for energy, growth, or

reproduction. This break-down process is known as digestion. The alimentary canal directs food unidirectionally from the mouth to the anus. It has three sections, each of which performs a different process of digestion. In addition to the alimentary canal, insects also have paired salivary glands and salivary reservoirs. These structures usually reside in the thorax, adjacent to the foregut. The salivary ducts lead from the glands to the reservoirs and then forward through the head to an opening called the salivarium, located behind the hypopharynx. By moving its mouthparts element 32 in numbered diagram the insect can mix its food with saliva. The mixture of saliva and food then travels through the salivary tubes into the mouth, where it begins to break down. Insects using extra-oral digestion expel digestive enzymes onto their food to break it down. This strategy allows insects to extract a significant proportion of the available nutrients from the food source. It can be divided into the foregut, midgut and hindgut. Foregut[edit] Stylized diagram of insect digestive tract showing malpighian tubule, from an insect of the order Orthoptera The first section of the alimentary canal is the foregut element 27 in numbered diagram, or stomodaeum. The foregut is lined with a cuticular lining made of chitin and proteins as protection from tough food. The foregut includes the buccal cavity mouth, pharynx, esophagus and crop and proventriculus any part may be highly modified, which both store food and signify when to continue passing onward to the midgut. As the salivary glands produce fluid and carbohydrate-digesting enzymes mostly amylases, strong muscles in the pharynx pump fluid into the buccal cavity, lubricating the food like the salivarium does, and helping blood feeders, and xylem and phloem feeders. From there, the pharynx passes food to the esophagus, which could be just a simple tube passing it on to the crop and proventriculus, and then onward to the midgut, as in most insects. Alternately, the foregut may expand into a very enlarged crop and proventriculus, or the crop could just be a diverticulum, or fluid-filled structure, as in some Diptera species. Note the contraction of the abdomen to provide internal pressure Midgut[edit] Once food leaves the crop, it passes to the midgut element 13 in numbered diagram, also known as the mesenteron, where the majority of digestion takes place. Microscopic projections from the midgut wall, called microvilli, increase the surface area of the wall and allow more nutrients to be absorbed; they tend to be close to the origin of the midgut. In some insects, the role of the microvilli and where they are located may vary. For example, specialized microvilli producing digestive enzymes may more likely be near the end of the midgut, and absorption near the origin or beginning of the midgut. Envaginations at the anterior end of the hindgut form the Malpighian tubules, which form the main excretory system of insects. Excretory system[edit] Insects may have one to hundreds of Malpighian tubules element These tubules remove nitrogenous wastes from the hemolymph of the insect and regulate osmotic balance. Wastes and solutes are emptied directly into the alimentary canal, at the junction between the midgut and hindgut. Insect reproductive system The reproductive system of female insects consist of a pair of ovaries, accessory glands, one or more spermathecae, and ducts connecting these parts. The ovaries are made up of a number of egg tubes, called ovarioles, which vary in size and number by species. The number of eggs that the insect is able to make vary by the number of ovarioles with the rate that eggs can develop being also influenced by ovariole design. Female insects are able make eggs, receive and store sperm, manipulate sperm from different males, and lay eggs. Accessory glands or glandular parts of the oviducts produce a variety of substances for sperm maintenance, transport and fertilization, as well as for protection of eggs. They can produce glue and protective substances for coating eggs or tough coverings for a batch of eggs called oothecae. Spermathecae are tubes or sacs in which sperm can be stored between the time of mating and the time an egg is fertilized. Most male insects have a pair of testes, inside of which are sperm tubes or follicles that are enclosed within a membranous sac. The follicles connect to the vas deferens by the vas efferens, and the two tubular vasa deferentia connect to a median ejaculatory duct that leads to the outside. A portion of the vas deferens is often enlarged to form the seminal vesicle, which stores the sperm before they are discharged into the female. The seminal vesicles have glandular linings that secrete nutrients for nourishment and maintenance of the sperm. The ejaculatory duct is derived from an invagination of the epidermal cells during development and, as a result, has a cuticular lining. The terminal portion of the ejaculatory duct may be sclerotized to form the intromittent organ, the aedeagus. The remainder of the male reproductive system is derived from embryonic mesoderm, except for the germ cells, or spermatogonia, which descend from the primordial pole cells very

early during embryogenesis.

Chapter 3 : Pacific Northwest Insects - Insect Field Guide, Pacific Northwest

Buy The Silliest Bug and Insect Book Ever by Terri Anne Hensley (ISBN:) from Amazon's Book Store. Everyday low prices and free delivery on eligible orders.

Share3 Shares 2K Insects represent more than eighty percent of all species. Currently, there are around thousand different kinds of insects known to science, with estimates of at least a million still waiting to be discovered. Many of us find them disgusting or scary, while others are fascinated by their huge variety, as they have colonized most terrestrial environments in the most surprising and fascinating ways. This list reveals ten insect superlatives ranging from the smallest to the most dangerous to the most daring of these creatures: A relative of the grasshopper and of the common house cricket, the giant weta is nowadays a vulnerable species. *Dicopomorpha echmepterygis* is a fairyfly native to Costa Rica, the males of the species being no more than 0. This species feeds on the eggs of other insects. Its venom is roughly 25 times stronger than that of the honey bee, but it is delivered in small doses, therefore rendering the harvester ant quite inoffensive. Most of you probably expected the Japanese giant hornet, the African killer bee or the bullet ant of South America as contenders to this title; surprisingly enough, the winner turned out to be in your very back yard, as members of these species are generally found throughout the US. Using the monsoon, these dragonflies travel from India to East and Southern Africa and back again, which adds up to between 14, and 18, kilometers. Furthermore, the long migration of these insects renders them as an accessible food source for migratory birds, which means that if anything happens to this species, many species of birds would find it very difficult, if not impossible, to perform their annual migrations. Although there are previous claims that it would top 60 mph, most experts disagree on their veracity. Nevertheless, there are many who consider that the title of fastest insect remains disputed among dragonflies, hawk moths, and horseflies, with various unverified measurements circulating about each one of these species. Although the mosquito is responsible for the most human deaths, the locust is the one insect that has made men cry in horror throughout history. I mean, everyone knows the allegations that cockroaches are capable of survival nuclear fallout and so on. Therefore, in hopes of raising at least a few eyebrows, I would like to mention a case in which a German cockroach nymph *Blattaria germanica* managed to live inside another very hostile environment: The nymph probably arrived there after having been inadvertently swallowed by the year woman while she was eating, and somehow managed to survive the digestive enzymes of her stomach. It is also an example of what biologists refer to as the Lazarus effect, namely when a species is thought to be extinct, but it is found again afterwards. The current population of wild *Dryococelus australis* is thought to consist out of less than fifty individuals 24 at the moment of their rediscovery ; with so small a population, however, the species remains critically endangered. Nevertheless, there are efforts to breed the Lord Howe Island stick insect, the Melbourne Zoo of Australia managing to breed over nine thousand individuals within their specially designated breeding program. Although the entire cicada family is famous for their loudness with some species managing to sing in almost db , the water boatman, at only two millimeters in length manages to make a noise Scientists have discovered that the members of the species living across America, Europe and Japan actually belong to the same colonies, as they will refuse to fight one another. Furthermore, a series of experiments hinted that these super colonies might actually be one worldwide colony of ants, as their members did not exhibit hostile behavior towards one another and recognized their familiar pheromone scent, despite being separated by thousands of miles. Furthermore, this unusual phenomenon seems to have been created by humans, who inadvertently introduced them to all continents from South America. Victor Pintlilie is a student of the natural world who likes to discover the intricacies of nature; his ambition is to become a reputable freelance writer about nature-related subjects.

Chapter 4 : Two Umbrellas - Two Umbrellas

Insects: The Most Fun Bug Book Ever by Sneed B. Collard Popular science writer Sneed B. Collard III gets creepy-crawly with many different kinds of insects, detailing their habitats, defense systems, communication techniques, and mating rituals.

Cockroaches Blattodea [edit] The largest cockroach in length and wingspan is the South and Central American *Megaloblatta* , at up to 9 cm. The most massive species belong to the genera *Goliathus* , *Megasoma* , *Chalcosoma* and *Titanus*. The longest species is the Hercules beetle , *Dynastes hercules*, with a maximum overall length of at least 34 cm. Earwigs Dermaptera [edit] The largest of the earwigs is the Saint Helena earwig *Labidura herculeana* , which is up to 8 cm. There are no recent records of this species and it is generally considered extinct. True bugs Hemiptera [edit] The largest species of this diverse, huge order are the giant water bugs *Lethocerus grandis* and *L. grandis*. The ant that averages the largest for the mean size of the whole colony is *Dinoponera gigantea* , averaging up to 3 cm. Another ant that is native to Australia, *Myrmecia brevinoda* , workers are reported to be 3 cm. The largest wasp is probably the so-called tarantula hawk species *Pepsis pulszkyi* , at up to 6 cm. The giant scoliid wasp *Megascolia procer* may rival the tarantula hawks in weight, if not length and wingspan, and the Asian giant hornet *Vespa mandarinia* can reach a body length of up to 2 in. The queen of this species can attain a length of 3 cm. Some larger species have been known to capture and consume frogs, lizards, mice, small birds, and even snakes. Giant Stick Mantids of the genus *Toxodera* and *Solygia* can reach lengths of 20 cm, but are more gracile in build than other large mantids. Grasshoppers, crickets, weta Orthoptera [edit] The heaviest of this widespread, varied complex of insects is the giant weta , *Deinacrida heteracantha*, of New Zealand. The longest is *Phryganistria chinensis* where a specimen held at the Insect Museum of West China in Chengdu has a total length of 10 cm. A specimen of the former held in the Natural History Museum in London has a total length of 10 cm. Fleas Siphonaptera [edit] The largest species of flea is *Hystrichopsylla schefferi*. This parasite, known exclusively from the fur of the mountain beaver , can reach a length of 1.5 cm. Thrips Thysanoptera [edit] Members of the genus *Phasmothrips* are the largest thrips. The maximum size of these species is about 1.5 cm. Dobsonflies and relatives Megaloptera [edit] Megaloptera includes dobsonflies , alderflies and relatives. The largest is the dobsonfly *Acanthacorydalis fruhstorferi* , which can have a wingspan of up to 10 cm.

Chapter 5 : The Well-Read Child: More Insect Books

What a fun concept for a nonfiction picture book. The author found insects with the silliest names (water boatmen, robber flies, booklice, and the title's doodlebugs) and investigates whether they do what their name implies.

Each month we host Virtual Book Club for Kids and choose a new author to feature. This month we are featuring Denise Fleming and we selected to craft and play along with the book *In the Tall, Tall Grass*. The illustrations are gorgeous and the action words are so fun to re-enact while reading. Our first bug activity features one of our favorite toys We did a silly bug catch game with them! You can usually buy these sticky bugs at Target in the party favor section or at other party stores. They are squishy, stretchy, and sticky. Once you have a handful of sticky bugs, grab a bowl or colander or something easy to help you collect the bugs. This next step is the silliest. Take all of your sticky bugs and throw them up to the ceiling or on your wall. This part is almost like my worst nightmare coming true The bugs will stick for a bit and then start falling! My kids had a blast running around with their big bowls trying to catch the bugs as they fell! My husband and I even had a good time playing. While they ran around the kids talked about the colors of the bugs. We also counted the bugs as they dropped. They even practiced working together and taking turns It was adorable to see my littlest running around trying to play too. Once the kids each had a bowl of bugs they took a break for a bit and then played again. This activity can be never-ending until the sticky bugs start getting dirty. Have you ever done any activities with sticky bugs? Have any favorite silly activities that your kids LOVE? In addition to playing with sticky bugs, we have several other bug activities that we enjoy doing.

Chapter 6 : Ebook Insects: The Most Fun Bug Book Ever PRC/EPUB/PDF Full

Giggle Bugs contains 58 of the silliest, craziest bug jokes that have ever been told. Children will have a ball reading the riddles and lifting the flaps to find the answers. Accompanying these zany jokes are a wide variety of silly, crazy bugs, fresh from the imagination of Carter himself.

Chapter 7 : List of largest insects - Wikipedia

Thanks for visiting! Here at The Well-Read Child, my mission is simple--get kids to read. I feature book recommendations, reading tips, and learning activities you can use to help instill the joy of reading in your child.

Chapter 8 : Top 10 Extreme Insect Species - Listverse

archive of high quality images of insects and insect Devan Ferreira and Tracy Silva for their initial work on the Bug Book You probably won't ever see us.

Chapter 9 : The Well-Read Child: January

The Silliest Bug and Insect Book Ever From Barnes and Noble: This book came from the author's fear of bugs and insects. She went to a hypnotist to help with this fear.